A New Genus of Pacific Island Enicocephalidae with New Species from the Hawaiian and Philippine Islands (Hemiptera)

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In a general introductory account of this curious family of gnat-bugs[1] I remarked that the group "is cosmopolitan in its distribution, being found on all of the main continents and on the major island groups with the exception of the Hawaiian Islands." A year of collecting, 1935–1936, on all of the large islands of the Hawaiian group and a study of the accumulated collections of the past half century in the territory seemed to confirm the above quoted generalization.

In the Spring of 1936, however, Mr. O. H. Swezey discovered some additional boxes of Hemiptera in the stored material at the Hawaiian Sugar Planter's Experiment Station. A glance at the contents of one of these boxes disclosed the single specimen which is made the type of the genus described below.[2] The venation of this specimen was entirely unique, not having been described for any Enicocephalid known at that time. It was unusually interesting and significant, then, to discover two specimens, obviously congeneric, of another species, this time from the Philippine Islands, while studying the miscellaneous unworked Hemiptera at the Museum of Comparative Zoology.

Our knowledge of the biology of these interesting bugs is still very fragmentary. The single specimen collected by Mr. E. H. Bryan, Jr., on Maui is the only specimen which has come to light in over fifty years of more or less intensive collecting in these islands. Equally inexplicable is the case of *Systellodéres pellucidus* (Horvath), described just fifty years ago from Southern Europe and never recorded since. Two gigantic nymphs of an unknown species were collected twenty years ago by Dr. F. E. Blaisdell at Fairfax, Marin County, California, a popular collecting ground from which no other specimens, nymphs or adults, have been taken since. In Southern Mexico I have collected thousands of these bugs swarming in the air like Chironomids towards dusk, only to return to the same field the following morning and find no trace of the species. The "commonest" California species is *Hymenocoris formicina* Uhler, known only from five specimens collected at scattered localities throughout the State until recently discovered swarming at Milpitas, near San Francisco Bay, by A. E. Michel-

[1] Usinger, R. L., Pan-Pac. Ent., 8: 145–156, 1932.
[2] Usinger, R. L., Proc. Haw. Ent. Soc., 9: 362, 1937.

bacher and B. E. White. The only species which I have ever encountered in numbers outside of swarms is *Systellodères angustatus* (Champion) which was found in association with ants beneath bark of fallen Pine trees in the high mountains of Mexico. For the present, then, the best method of collecting Enicocephalids is to sweep one's net through every swarm of "Chironomids," especially towards evening or after a rain.

Nesenicocephalus Usinger, new genus

Very small, slender species with a highly polished body surface sparsely clothed with fine, erect hairs. Head shaped much as in the genus *Systelloderes*, the posterior lobe subquadrate, being a little broader posteriorly than in front; a very prominent constriction just behind the eyes separates the head into two distinct lobes. Ocelli very prominent, located at anterior margin of posterior lobe near constriction. Antennae shorter than head and pronotum together, the first segment shortest, the following three subequal. Pronotum unarmed, simple, the anterior and posterior constrictions very prominent, delimiting three posteriorly progressively widening lobes, without a longitudinal suture at middle; shallowly but distinctly angulately emarginate on posterior margin. Scutellum broad at base but abruptly narrowed just behind this to form a broad, rounded posterior projection. Totally membranous hemelytra, when folded at rest, narrow at middle, dilated and rounded posteriorly; thickened costal margins transversely rugose; venation characteristic of the genus and differing from all other Enicocephalids known to me in the closed discal cell with basal discal cell wanting (figure 1). Anterior coxal cavities open behind. Front femora scarcely incrassate, front tibiae only feebly dilated apically, their greatest width less than greatest width of femora. Anterior tarsi one-segmented and bearing two very fine claws. A few very long hairs at apex of abdomen beneath. Color fuscous or ferrugineous to black with lateral margins of hemelytra tinged with reddish and bases of hemelytra sometimes white.

Genotype: *Nesenicocephalus hawaiiensis* Usinger, new species.

Nesenicocephalus hawaiiensis Usinger, new species (fig. 1)

Surface faintly roughened on head and pronotum, sparsely beset with white hairs which are longest on pronotum and front femora. Head as long as pronotum, its anterior lobe, including eyes, equal in width to pos-

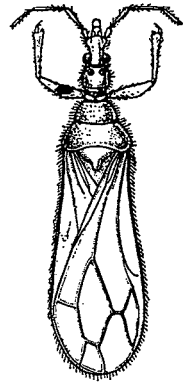

FIG. 1. *Nesenicocephalus hawaiiensis* Usinger, new species.

terior lobe; posterior lobe, between anterior and posterior constrictions, transverse, 5::4, its sides almost imperceptibly dilated posteriorly; eyes small, the interocular space above, greater than width of one eye, beneath, only equal to one-half width of one eye; ocelli prominent, distinctly elevated. Rostrum short and stout. Antennae equal in length to head and anterior two lobes of pronotum; slender, the first and second segments thickest, less than half the thickness of base of anterior tibia, second segment narrowed on basal half, third segment linear, fourth slightly thickened, fusiform; proportion of segments one to four as 2:4.5:4.5:5. Pronotum broader at base than long, 12::9.5, the anterior lobe shortest, middle lobe intermediate, and hind lobe longest in the proportion of 2:3.5:4.5; anterior lobe slightly less than one-half as wide as posterior lobe, intermediate lobe over three-fourths as wide as posterior lobe; anterior margin scarcely emarginate; humeral angles rounded. Hemelytra beset with a sparse, white pubescence at apex and more or less on the margins and veins. Anterior femora but little dilated, one-fourth as thick as long. Tibiae likewise slender, their inner apices bearing several long setae. Hind femora rather stout, slightly more than one-fourth as thick as long. Front tarsi and claws very short, scarcely longer than width of tibiae apically. Venter clothed with a sparse, irregular, white pubescence.

Color slightly darker than fulvous, tending more towards fuscous. Lighter, fusco-testaceous, on part of the rostrum, the apical two antennal segments, apices of front femora, and tarsi. Eyes brown. Ocelli red. Scutellum faintly suffused with red. Abdomen ferrugineous. Hemelytra subhyaline, infuscated throughout but obscurely paler on basal eighth; thickened costal margins and stigmata red.

Length 2.32 mm., width (pronotum) .48 mm., (hemelytra) .60 mm.

Holotype, B. P. Bishop Museum, taken on the ridge above Haelaau on West Maui at an elevation of 3000 to 3300 feet, December 21, 1928, by E. H. Bryan, Jr.

Nesenicocephalus philippinensis Usinger, new species

Body surface faintly, rugosely punctate or roughened and beset with a moderately dense vestiture of white hairs. Head a little longer than greatest length of pronotum; anterior lobe, including eyes, a little narrower than posterior lobe; posterior lobe transverse, 6.5::5.5, its sides more gradually rounded anteriorly; interocular space above not quite twice as wide as an eye, beneath much smaller; ocelli small but distinct and elevated. Rostrum moderately stout, short, and roundly deflected downward and posteriorly. Antennae not quite as long as head and pronotum on median line; first two segments thickest, third linear, fourth fusiform; proportion of segments one to four as 3:6:7.5:7. Pronotum broader at base than long, 15::12; lobes progressively longer from apex to base, 2.5:5:5.5, and progressively wider, 6:10:15; lateral margins not carinate; humeral angles rounded. A few setae along the veins of hemelytra and more along costal margins. Anterior femora a little more than one-fourth as thick as long. Tibiae less strongly dilated at apices than greatest width of femora. Tarsal segments almost as long as width of apices of tibiae and the longer front claw longer than this width. Hind femora one-fifth as thick as long. Venter flattened and, in the shriveled examples before me, with a median longitudinal keel formed by a folding of the abdomen.

Color dark pitchy fuscous to almost black. Testaceous to white on the basal one-eighth of hemelytra, apices of middle and hind femora, and meso and metatibiae and even tarsi. Abdomen and middle and hind femora ferrugineous. Hemelytra subhyaline, suffused with brown, the costal margins and stigmata tinged with reddish.

Length 2.97 mm., width (pronotum) .57 mm., (hemelytra) .73 mm.

Holotype, Mus. Comp. Zool., Galog River, 6000 feet, Mt. Apo, Mindanao, P. I., September 1928, C. F. Clagg collector, and one paratype, Todaya Plateau, 5000 feet, Mt. Apo, Mindanao, P. I., September 2, C. S. Clagg.

This species differs from *hawaiiensis* chiefly in its considerably larger size, darker color with distinct white bases of hemelytra, and larger anterior tarsi and claws.